isolated amateur worker. The price is merely nominal,—3 s. 6 d. yearly. Address the Secretary, 22 Carnarvon Road, Reading, England.

THE LIFE-CYCLE IN HYPOTRICHOUS INFUSORIA.

Baitsell (J. Exp. Zool. Feb. 1914) has undertaken to determine whether culture conditions could be found for Oxytricha and Pleurotricha that would eliminate the so-called life-cycle, which assumes the necessity of conjugation to prevent senescence and death as the result of continued division. He concludes that the dying out of some cultures was due, not to a condition of inherent senescence but to the fact that the culture conditions were not entirely favorable. He found that "sister cells" of Oxytricha lived twice as long in mass cultures without conjugation as when bred in daily isolation cultures. In Pleurotricha he has found culture conditions in which the organism will apparently live indefinitely without conjugation or artificial stimulation,—as Woodruff has earlier found for Paramecium.

In the same journal Woodruff has a note showing that his race of Paramecium which had gone for 4102 generations without tendency to conjugate presented numerous conjugating pairs. This disposes of the idea that *non-conjugating* races of Paramecium have been isolated.

PEARL FORMATION.

Fr. Alverdes (Zeits. Wiss. Zool. CV., 1913, p. 598) discusses the formation and structure of pearls in several pearl-bearing mollusks. The pearl forming layer is ectodermal, but the origin of the sac is uncertain. By inserting ectoderm cells in the mantle tissues sacs similar to the usual pearl-sacs were formed, and in these the pearly layers were deposited. The author found that pearls may or may not have a central foreign body or nucleus. The pearl may be laid down around a parasite, an ovum, or a fragment of inorganic matter. These foreign bodies may produce a kind of pseudo-sac in which the pearl may be laid down in concentric layers.

REGENERATION OF NERVES.

Clark (Jour. Comp. Neur. Feb. 1914) attacks in a new way the questions clustering about degenerating and regenerating nerves.